**Searching for Sharks**

**Scientists are using videos to count and study sharks around the world. The goal: to help prevent the extinction of the big fish.**

SEP 18, 2015 | **By Glenn Greenberg**

A shark smells prey near a coral reef. It swims toward its intended meal: bait attached to a camera planted on the ocean floor. The predator heads over to the camera. The shark is captured on video, but the scene is not for a movie or TV show. It is for Global FinPrint, a project to create the first worldwide census of sharks.

The three-year survey, which began in June, also focuses on rays. Both sea creatures face challenges to their survival. A main goal of Global FinPrint is to ­determine where sharks and rays need help the most.

“Sharks and rays are under threat all over the world from fishing, habitat loss, and climate change,” Demian Chapman told TFK. He is a marine biologist at Stony Brook University, in Stony Brook, New York, and the lead scientist for the project. Chapman’s team includes researchers from Stony Brook; Florida International University; James Cook University, in Australia; and the Australian Institute of Marine Science.

**Finding the Hot Spots**

According to a 2013 study published in the journal ­Marine Policy, about 100 million sharks are killed each year. The fish are hunted for their meat and fins, which are prized in parts of Asia for use in shark-fin soup.

Sharks are an important part of marine eco­systems. As top predators, they keep animal populations in balance. That is one reason scientists are eager to learn more about the areas where sharks do well. “We want to find the hot spots—the places that still have lots of sharks and rays—and determine what makes them hot spots,” Chapman says. Researchers will compare data from the hot spots with data from areas where shark or ray populations are small or unknown. These areas include the tropical western Atlantic Ocean and parts of the Indian and Pacific Oceans.

**Reef Research**

Hundreds of coral reefs that serve as shark and ray habitats are getting special attention. “We want to see what features of a reef influence the number of sharks and rays that live there or visit,” Chapman says. “We’ll look at how many other fish live on the reef, how healthy the coral is, and the proximity to ­humans.”

Underwater cameras are playing a key role in the project. Scientists study the video footage and note when and where a shark or ray appears. To make sure they don’t count the same animal more than once, scientists record a fish’s size, its ­species, and its markings. “We add all this information to the database,” Chapman says. He notes that the study will eventually go beyond the reefs to include other kinds of shark and ray habitats.

Once Global FinPrint is completed, in 2018, the scientists will report on what they learned about the behavior, numbers, and locations of shark and ray species. Chapman says this information will be useful to governments and organizations that want to protect the fish. “It will help determine what conservation efforts are needed around the world,” he says, “and how to choose areas for protection.